

## REMARKS

As previously argued, the Examiner's withdrawal of claim 44 is respectfully traversed because it merely recites an *additional* feature to the elected embodiment, and is not by itself a distinct embodiment. The Examiner alleges that "the elected invention as shown in Fig. 2A-3D ... does not have a current confinement film." However, merely because Figure 2A-3D does not have a current confinement film is not relevant in determining whether claim 44 falls within the scope of the elected embodiment. As set forth in MPEP § 806, "(C) [w]here inventions are related as disclosed but are not distinct as claimed, *restriction is never proper*" (emphasis added). Indeed, the same MPEP section expressly states that "it is imperative the [restriction] requirement should never be made where related inventions as claimed are not distinct." In the instant case, the invention of claim 44 is necessarily related to that of claim 15 in that claim 15 *embodies* claim 44 (e.g., via dependency therebetween). Again, claim 44 simply adds a feature to the device recited in claim 15. If such a recitation is precluded, then all dependent claims which add a feature to an independent claim would be precluded, which is clearly not the case.

Indeed, to make a species restriction, the Examiner must evidence a mutual exclusion among the species. As set forth in MPEP § 806.04(f), "[w]here *two or more* species are claimed, a requirement for restriction to a single species may be proper if the species are mutually exclusive" (emphasis added). In the instant case, the Examiner has not even compared claim 44 with any other alleged species, let alone evidence mutual exclusivity therebetween. Moreover, claim 44 is not mutually exclusive of claim 15 in view of the dependence thereof.

Further, as noted in MPEP § 806.04(f), a species restriction is based on two or more species being claimed. In the instant case, the Examiner references only one species (i.e., current-confinement layer). If, for example, there was another claim 44' which recited a current

non-confinement layer, such a claim would be mutually exclusive with claim 44 so that Applicants would be properly restricted to either claim 44 or claim 44'. Here, however, the Examiner does not reference a claim 44', and claim 15 can not be mutually exclusive with claim 44 because it embodies claim 44 by virtue of the dependence therebetween. Again, as previously mentioned, claim 44 is simply an additional feature being added to the structure of claim 15 and is not a species of claim 15, let alone a mutually exclusive species. Pursuant to the MPEP § 806, therefore, not only is restriction never proper, "it is imperative the [restriction] requirement should never be made ... ." Accordingly, it is respectfully requested that claim 44 be rejoined and examined as being embodied by the elected embodiment.

Claims 15-21, 27, 34-39, 42, 43, 45 and 46 stand rejected under 35 U.S.C. § 112, first paragraph (written description). This rejection is respectfully traversed for the following reasons. With respect to claim 15, it is respectfully submitted that every material has a reflectance with respect to a wavelength of, for example, 470 nm so that one of ordinary skill in the art would readily recognize that the expression of "more than 55%" can refer to the reflectance of copper, for example, whereby the first electrode can be made of copper. Accordingly, in response to the Examiner's inquiry of "[w]hat material has a reflectance of 55% or more," as would be recognized by one of ordinary skill in the art, copper does.

It is respectfully submitted that the enclosed amendment obviates the alleged issues with regard to claim 27. Further, the Examiner asserts that "claim 27 can not be examined for its merits" in view of the alleged new matter. However, there is no basis in the MPEP for the Examiner's assertion. In fact, contrary to the Examiner's assertion, MPEP § 2163.06(I) under the heading "Treatment of New Matter" expressly mandates that "[t]he examiner should still

consider the subject matter added to the claim in making rejections based on prior art since the new matter rejection may be overcome by applicant.” Accordingly, if the Examiner sets forth a prior art rejection against claim 27, it is respectfully requested that the Office Action in which the rejection is made be non-final.

With respect to claim 46, the Examiner alleges that “[a]ccording to [page 19 of] the specification, the thick metal film 16 has a thickness of about 500 nm and that of the first supporting material 41 is about 100  $\mu\text{m}$ .” However, the disclosed element referenced on page 19 of Applicants’ specification having a thickness of about 500 nm is the bonding pad 16 rather than the claimed thick metal film as alleged by the Examiner on page 5 of the outstanding Office Action. Support for the feature in claim 46 can be found, for example, on page 32, line 25 - page 33, line 1 of Applicants’ specification which discloses an exemplary thick metal layer 18 having a thickness of 50  $\mu\text{m}$ ; and on page 31, lines 5-6 which discloses an exemplary first supporting material 42 having a thickness of 100  $\mu\text{m}$ .

Based on the foregoing, it is respectfully submitted that claims 15-21, 27, 34-39, 42, 43, 45 and 46 have written description. Accordingly, it is respectfully requested that the rejection under § 112, first paragraph, be withdrawn.

Claims 15 and 26 are the sole independent claims and stand rejected under 35 U.S.C. § 102 as being anticipated by Yoo ‘212 (“Yoo”). This rejection is respectfully traversed for the following reasons.

**A. Claim 15**

Claim 15 recites in pertinent part, “b) selectively forming a first electrode and a current-confinement layer on a surface of the semiconductor multilayer film.” According to one aspect

of the present invention, the completed chip can prevent current from leaking at the periphery thereof. Yoo, on the other hand, is completely silent as to forming a current-confinement layer, let alone in the manner set forth in claim 15.

#### **B. Claim 26**

Claim 26 recites in pertinent part, “***bonding*** a first supporting material, which is made of a plastic material in film form, ***onto*** the thick metal film for supporting the semiconductor multilayer film; e) separating the substrate from the semiconductor multilayer film after the step d) is performed.” In contrast, the alleged first supporting material 198 of Yoo is ***bonded*** to the photo-resist film 196 interposed between the alleged first supporting material 198 and the alleged thick metal film 192. Indeed, the photo-resist film 196 prevents contact between the alleged first supporting material 198 and thick metal film 192. In addition, heat generated during the laser lift-off of Yoo reaches the epoxy layer through the semiconductor multilayer film causing the epoxy layer 198 to melt, thereby diminishing its effectiveness as an alleged “supporting material.”

According to one aspect of the present invention, for example, when the exemplary first supporting material 42 made of a plastic material is formed onto the exemplary thick metal film 18 and then the substrate is irradiated with a laser, the substrate and the semiconductor multilayer film can have sufficient strength during the laser irradiation. Moreover, since the exemplary thick metal film 18 can be formed on the semiconductor multilayer film 11, heat can be efficiently released during the laser lift-off.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that “inherency may not be established by probabilities or possibilities”, *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a

single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Yoo does not anticipate claims 15 and 26, nor any claim dependent thereon.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 15 and 26 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

For example, claim 27 recites in pertinent part, “bonding a second supporting material, which is made of a plastic material in film form, onto the surface of the semiconductor multilayer film and the second electrode opposite to the first supporting material.” According to one aspect of the present invention, the exemplary semiconductor multilayer film 11 can have sufficient strength even when the first supporting film 42 is removed. Yoo is silent as to a second supporting material, let alone in the manner set forth in claim 27.

Based on all the foregoing, it is respectfully submitted that the pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 102/103 be withdrawn.

Further, as it is believed that claim 15 is now in condition for allowance, it is respectfully requested that withdrawn claims 22-25, 30, 40, 41 and 44 be rejoined as depending on an allowable independent claim.

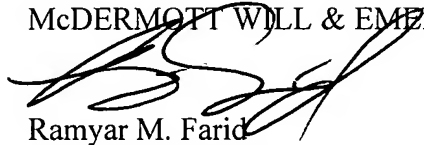
## CONCLUSION

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Ramyar M. Farid

Registration No. 46,692

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 RMF:MWE  
Facsimile: 202.756.8087  
**Date: November 4, 2005**

**Please recognize our Customer No. 20277  
as our correspondence address.**